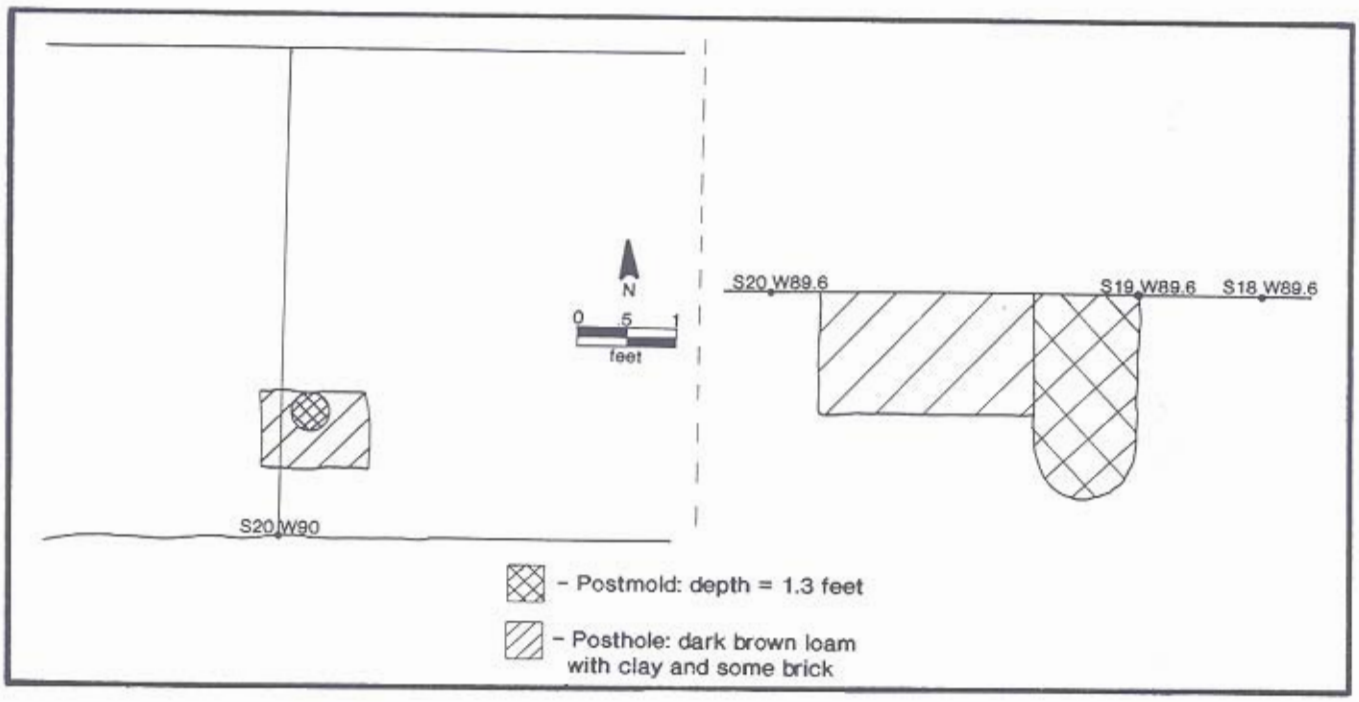
FIGURE 58
Plan View and West Wall Profile of Feature 34



Other Features

Cluster of Features at Southeast Corner of Store

Ten feet south and 6' east of the store's southeast corner, south of the early nineteenth century addition, lay a cluster of five features (19, 26, 35, 30, and 34). Not suggestive in their layout of a porch or other shed-like structural addition to the store (Figure 26), only one feature contained obvious evidence of a post mold set in a post hole (Feature 34). In plan, profile, fill and to a certain extent size, the features exhibit the variability typifying post and plant features across the site. Square, circular and rectangular in shape (Table 74), they ranged in size between 0.5' and 1.1'. Only the post hole/post mold complex (Feature 34) extended beyond 0.25'-0.5' below subsoil. The hole of Feature 34 similarly extended only 0.5' in depth; the small (0.4' diameter) round post had been seated an additional 0.35' into subsoil (Figure 58). Brown to dark brown silty to clayey loam filled all five features, with most flecked with brick.

The features also shared characteristics of their material cultural assemblages. All contained architectural items, principally brick, but also nails and window glass. Despite the small numbers (21 artifacts plus brick from all five features), the proportion of the features containing window glass was high compared to other feature complexes such as the fencelines. Given these features' close proximity to the store, this is not surprising. The cut nails and overglaze hand-painted porcelain from Feature 30 (a feature disturbed by rodent activity), and one sherd each of creamware and pearlware from the post hole and mold (34) comprise the only temporally diagnostic artifacts among the assemblages. All the features, therefore, could have originated in the late eighteenth through early nineteenth centuries, when construction and renovation of the store occurred, as indicated by other archaeological evidence.

TABLE 74

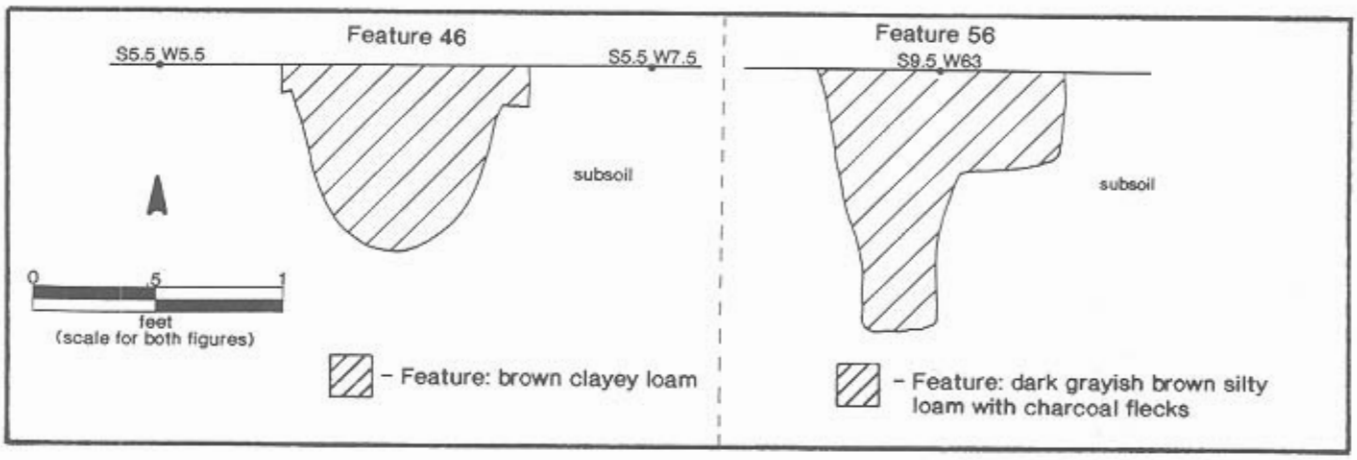
CLUSTER OF FEATURES AT SOUTHEAST CORNER OF STORE

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
19	S30 W94.9	Rectangular	Sloping Walls; Sloping Base	.7'x.5'x.5'	Brown Silty Loam Flecked w/ Brick and Charcoal	Window Gl 2
26	S26.2 W91.9	Square	Straight Walls; Sloping Base	1'x1'x.25'	Dark Brown Clayey Loam w/ Gravel and Brick Flecks	Brick 1 oz.
35	S22.8 W93.3	Circular	Sloping Walls; Rounded Base	.8'x.8'x.5'	Dark Brown Silty Loam	Brick 1 oz. Window Gl 1
30	S20 W92.1	Rectangular	Rectang-ular Disturbed	.1'x.5'x.4'	Brown Silty Loam Flecked w/ Brick	Brick 3 oz. Cut Nails 3 Nail 1 Porcelain 1
34	S19 W89.6	Rectangular	Straight Walls; Flat Base w/ Rounded Post Mold	1.1'x.8'x.85'	Dark Brown Clayey Loam Flecked w/ Brick	Window Gl 2 Bone 2 Creamware 1 Pearlware 1

Key:
Gl = Glass
w/ = with

FIGURE 59

South Wall Profile of Feature 46 and East Wall Profile of Feature 56



Other Features in the Inner Yard Directly Behind the Store

A roughly 35' x 40' area directly behind the store stands out clearly as a courtyard comparatively free of features (Figure 26). Only five small post or plant holes (Features 16, 112, 149, 95 and 138) define the courtyard's perimeter. Similar in size to the feature cluster at the store's southeast corner, all but one ranged between 0.5' and 1.2' (Table 75); the larger feature (95) measured 2' x 2' in plan. All bottomed out between 0.2' and 0.6' below subsoil. Square to rectangular or oval in plan, a dark brown loam filled the four smaller features which together yielded 19 artifacts (not including brick). None contained discernible post molds. The artifact assemblages suggest an early nineteenth century date. The larger feature located just east of Outbuilding I (Feature 95) may constitute the remains of a shallow trash pit associated with that structure. Unfortunately, the brick, window glass, unidentifiable sheet metal and chain links offer little assistance in identifying the activities carried out there.

Other Features in the East Yard of Darrach Store

Twenty other features not attributable to identifiable structures or fences and formally distinct from rodent intrusions lay in the east yard of the Darrach Store, north of the main northeast to southwest trending fenceline (Figure 26; Table 76). With two exceptions (Features 66 and 69), they fit the site's generalized post and plant hole "type." Feature 69 was a rectangular, north-south trench dug just south of the burial (Feature 68). Carefully dug, its purpose and date remain a mystery. Similarly unidentifiable, Feature 66 lay two feet south of Feature 79 (Figure 26). Oriented south of east-west, it measured 6' long by a maximum of 3' wide and was filled with a culturally sterile yellowish brown gravelly loam. The walls sloped gently to a maximum depth of 1.1' below subsoil.

Four other features in this group (57, 59, 61 and 64) also lay within a few feet of the burial (Feature 68). Three form a north-south line one foot east of the graveshaft, set 3' - 4' apart. The fourth lay 4' further west, just east of Feature 69. Similar in shape and diameter, but not in depth, this group of oval to circular features ranged from 0.6' to 1.1' in diameter and from 0.2' to 1' in depth. Two contained small amounts of brick, but no other cultural material. Thus their association with the grave, perhaps as a temporary shelter, remains problematic.

The remaining 13 features lay scattered across the east yard. Four represent post hole and mold complexes (46, 55, 56, 73). "Stepped" profiles distinguish three of them, with the post mold extending below the base of the hole into subsoil (Figure 59). Their location is not patterned with respect to each other or to other identified structures or fences.

TABLE 75

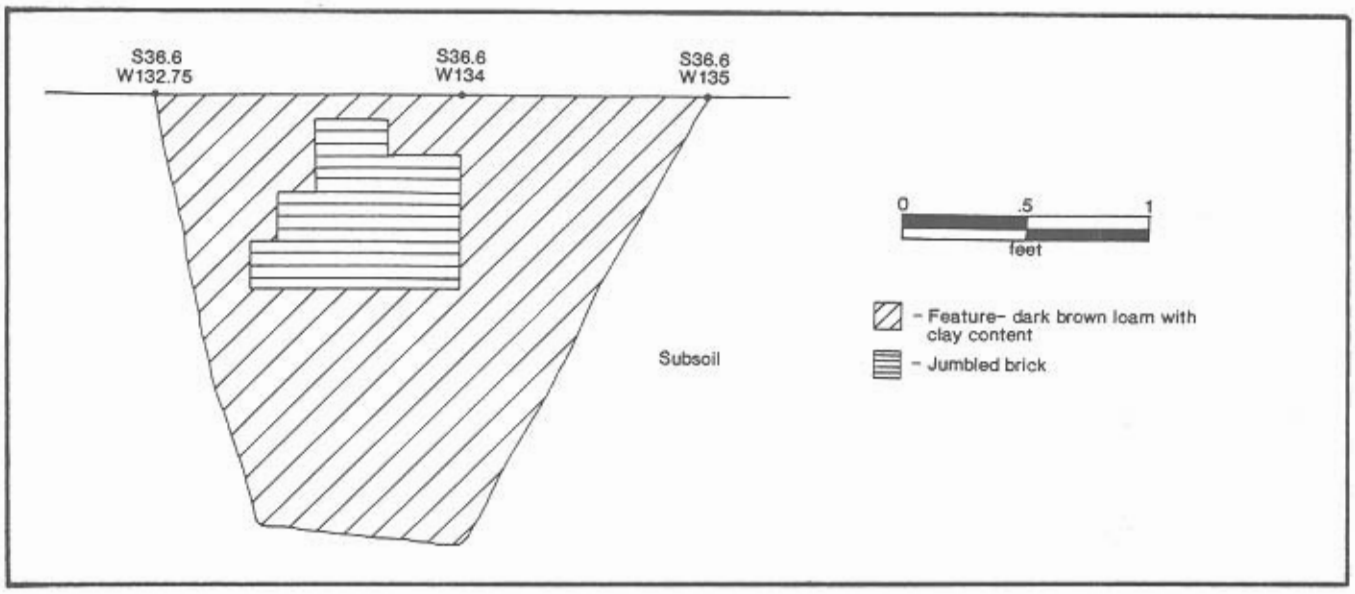
FEATURES IN INNER YARD DIRECTLY BEHIND STORE

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
16	S42.1 W113.3	Rectangular	Sloping Walls; Flat Base	.8'x.5'x.3'	Dark Brown Loam Flecked w/ Brick and Charcoal	Creamware 1 Pearlware 4 Whiteware 1
112	S48 W108.2	Square	Straight Walls; Sloping Base	1'x1'x.4'	Dark Brown Loam	
149	S38.5 W74.5	Oval	Straight Walls; Flat Base	1.2'x1'x.6'	Dark Brown Loam w/ Shell Scatter, Sand and Gravel in Base	Oyster 8 Iron 5 Transfer Printed Pearlware 1 Shell Edge Pearlware 2
95	S56 W102	Circular	Sloping Walls; Irregular Base	2'x2'x.2'	Dark Brown Loam w/ Shell Scatter	Window Glass 1 Brick 3/15 g Sheet Metal 15 Chain Links 7
138	S45.6 W70.9	Square	Sloping Walls; Rounded Base	.75'x.75'x.4'	Dark Brown Clayey Loam	Brick .5 oz

Key:
w/ = with

FIGURE 60

South Wall Profile of Feature 20



Circular to oblong or rectangular in form, the holes held round or oblong posts potentially up to 0.8' in diameter. A lining of rocks laid in its base as a post support identified the fourth post hole (Feature 55). In overall size, the post holes ranged between 0.75' and 1.9' and extended to depths of 1'-1.7' below subsoil, among the deeper post holes encountered at the site.

Their artifact assemblages distinguished two other features in this group. Feature 236 (Table 76), a post/plant hole just off the northeast corner of the shallow trash pit (Feature 139) yielded 22 artifacts in addition to brick. They resemble those recovered from the trash pit. Feature 43, an irregular plant hole less than 15' east of the store's eastern addition, contained the only fragments of a child's toy recovered from the site a broken porcelain doll (Table 76).

The remaining seven features (Table 76), circular or rectangular in shape, ranged in size from 0.6' to 1.5' and extended 0.2' to 1.1' into subsoil. Two possibly comprise a post and planting hole complex (Features 54 and 58); the remainder cannot be assigned a definitive function. Two contained no cultural material; the rest yielded a few sherds of window glass, brick, redware, whiteware, porcelain, and pearlware. In general, the artifact assemblages from all 18 of these features in the east yard could support dates of origin in the early nineteenth century, about the time the store's east addition was constructed.

Other Features in the West Yard of Darrach Store

In dramatic contrast to the open courtyard behind the store, 26 features lay in the west yard between the store and the gully (Figure 26). Neither were they all small plant or post holes with few artifacts. In addition to those trash-filled post holes associated with the north-south fenceline, six other features (20, 21, 70, 71, 192, 198) in the west yard yielded a total of 138 artifacts and more than 40 pounds of brick (Table 77).

Feature 20 marks the location of a former post set on a brick pier 10' west of the store's southwest corner, and subsequently replaced with a post set at the original hole's southern edge (Feature 21). In addition to the brick (Figure 60), the pier hole received a substantial amount of domestic trash and construction materials when filled,

TABLE 76

OTHER FEATURES, EAST YARD OF STORE

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts	
43	N7 W67.5	Irregular	Sloping Walls; Flat Base	1.3'x1.3'x.7'	Dark Brown Loam Flecked w/ Brick	Doll parts Bone Redware	7 2 1
44	N2.5 W54	Circular	Irregular	1.5'x1.2'x.95'	Dark Grayish-Brown		
45	S3.8 W29.7	Rectangular	Sloping Walls; Sloping Base	1.4'x.8'x.7'	Medium Brown Loam	Window Gl Redware	1 4
46	S5.5 W6.5	Oblong	Stepped Sloping Walls; Rounded Base	1.9'x1.6'x1'	Brown Clayey Loam	Redware	1
64	S9.5 W70	Circular	Sloping Walls; Rounded Base	1'x1'x.6'	Dark Brown Silty Loam	Brick	1
56	S9.5 W63	Rectangular	Straight-Sloping Walls; Flat Base [Post Hole w/ Mold]	1.3'x1'x1.1'	Dark Grayish-Brown Flecked w/ Charcoal	Glass Window Gl Redware Creamware	1 3 1 1

TABLE 76 (cont.)

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts	
55	S16 W57	Rectangular	Straight Walls; Rounded Base	1.5'x1.1'x1.7'	Rocklined, Brown Loam	Pearlware	1
63	S21 W53.5	Circular	Straight Walls; Rounded Base	.6'x.6'x.35'	Dark Brown Silty Loam	Brick	1
54	S14 W27	Rectangular	Sloping Walls; Flat Base	1.2'x.8'x1.1'	Dark brown Loam	Window Gl Painted Pearlware	1 1
58	S15 W26	Circular	Bowl	.8'x.8'x.2'	Dark Brown Loam		
73	S22 W5.2	Circular	Straight, Stepped Walls; Rounded Base	.75'x.75'x1.2'	Dark Brown Loam Flecked w/ Charcoal Sandy Base		
77	S33.1 W39.6	Circular	Sloping Walls; Flat Base	.6'x.6'x.4'	Dark Brown Loam Flecked w/ Brick, Charcoal	Pearlware	1
236	S39.5 W59.5	Square	Sloping Walls; Rounded Base	.9'x.9'x.45'	Dark Grayish Brown Loam Flecked w/ Charcoal	Bottle Gl Window Gl Cut nail Brick Bone Shell Porcelain Painted Pearlware	5 1 1 .5 oz 2 10 1 1

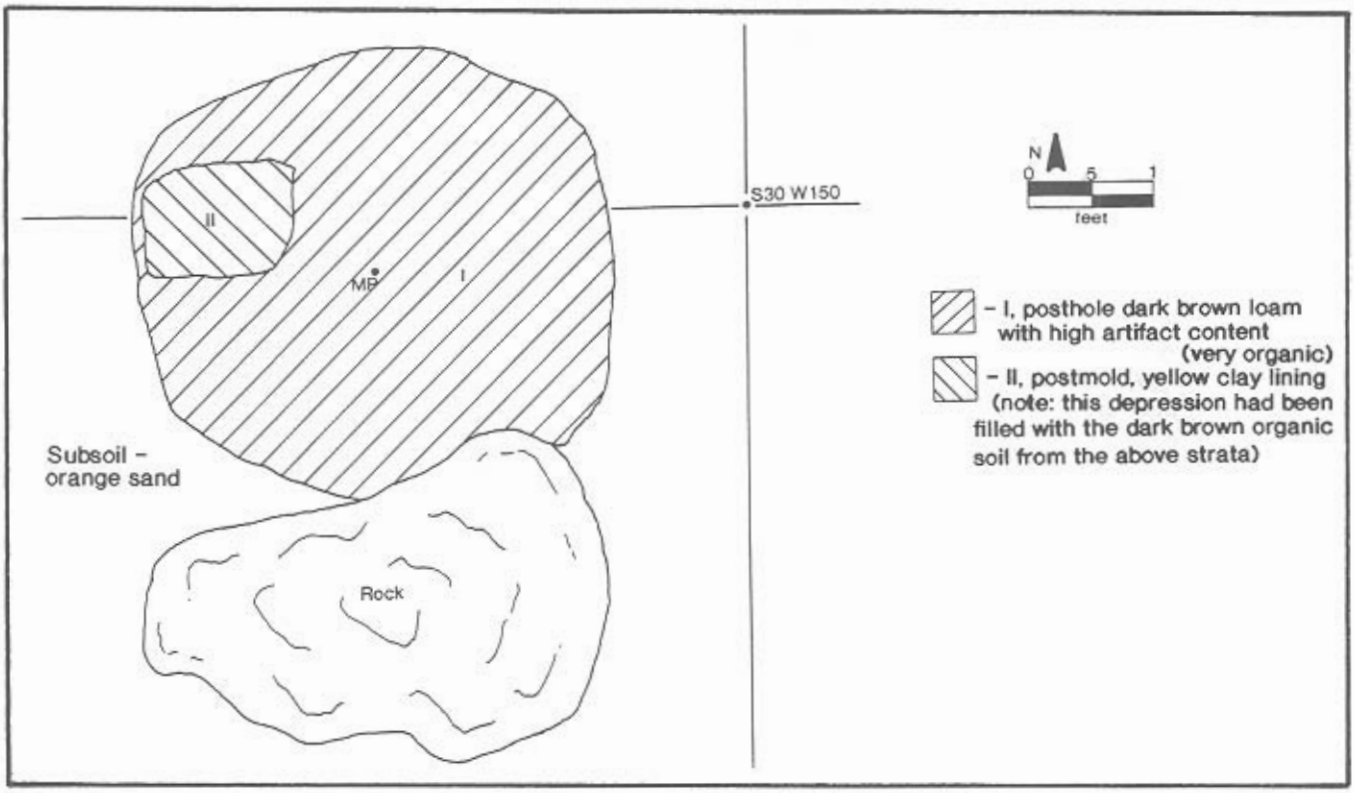
TABLE 76 (cont.)

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
57	S13.3 W70	Oval	Sloping walls; Rounded Base	1'x.6'x.3'	Brown Silty Loam Flecked w/ Brick, Charcoal	Brick 2 oz
59	S17.5 W69	Circular	Sloping Walls; Flat Base	.8'x.8'x.2'	Brown Silty Loam	
61	S17.5 W74.5	Circular	Sloping Walls; Rounded Base	1.1'x1.1'x1'	Brown Silty Loam	
69	S18 W75	Rectangular	Straight Walls; Flat Base	2.4'x.9'x.8'	Dark Brown Loam Mottled w/ Subsoil	
62	S8 W56	Circular	Rounded	.6'x.6'x.35'	Brown Silty Loam Flecked w/ Charcoal	Porcelain 1 Transfer Printed Whiteware 2

Key:
Gl = Glass
w/ = with

FIGURE 61

Plan View of Feature 198



probably in the last decade of the eighteenth century. Most of the ceramics support an earlier date for the feature, but the presence of the cut nail precludes this. Rather, debris from the store's original construction and refuse from its early occupants in the third quarter of the eighteenth century, deposited as sheet refuse in this area, were disturbed by digging the pier hole; during backfilling this material was redeposited along with a few more recent artifacts.

Closer to the northern end of the store, Features 70 and 71 lay just west of the fenceline, and only 3' apart. They differ, however, in size, shape and contents (Table 77). More typical in size and shape of the site's post and plant holes, Feature 71 featured a circular 1' diameter plan and a quantity of brick distributed randomly throughout its fill rather than in a concentration as in the pier hole Feature 20. This, and the dearth of other artifacts, despite the feature's location in an area which received much early household refuse, suggests a feature associated with the store's construction, perhaps a component of a scaffolding system. By comparison, its pentagonal shape and the barnacle in its fill make Feature 70 unique to the site. The barnacle certainly reflects the store's maritime and shipping associations, but the details of its presence in this feature remain unexplained. The other artifacts recovered from Feature 70 support a date in the third quarter of the eighteenth century, placing the feature among those associated with the store's early occupation. The fragments of a hand blown wide-mouthed jar, possibly a product of an eighteenth century southern New Jersey glasshouse, are the only ones from this container type recovered at the site.

TABLE 77

TRASH-FILLED POSTHOLE FEATURES IN WEST YARD OF STORE

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
20	S36.6 W134	Irregular	Sloping Walls; Flat Base	1.3'x1.1'x1.9'	Dark Brown Loam Flecked w/ Brick	Brick 34.1 lb Bottle Glass 4 Window Glass 10 Glass 2 Cut Nail 1 Nails 4 Iron 1 Bone 1 Pipe Stem 1 Redware 13 Delft 1 Porcelain 2 Staffordshire 6 Creamware 1 Pearlware 1
21	S38.2 W134	Circular Mold in F. 20	Straight Walls; Flat Base	.9'x.9'x.9'	Dark Brown Loam Flecked w/ Brick and Charcoal	Redware 1
70	S13 W144.5	Irregular Penagonal	Sloping Walls; Flat Base	2'x2'x.5'		Glass Jar 3 Window Glass 1 Brick 1 oz Barnacle 1 Redware 4 Creamware 2
71	S8.7 W144.25	Circular	Straight, Sloping Walls; Flat Base	1'x1'x.7'	Brown Loam Mottled w/ Yellowish-Brown Sandy Loam, Gravelly	Brick 9.5 lbs Oyster 1

TABLE 77 (cont.)

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts	
192	S39 W152	Square		1.6'X1.6"X.6'	Dark Grayish Brown Loam	Bottle Glass	1
						Lamp Glass	1
						Window Glass	1
						Nails	3
						Iron	4
						Oyster	3
						Bone	1
						Pipe Bowl	1
						Redware	8
						Tin Glazed	1
198	S30.5 W153	Circular Hole; Rectan-gular Mold	Straight Wall; Flat Base	3.6'X3.8'X1.25'	Dark Brown Organic Soil	Bottle Glass	2
						Nails	2
						Iron	9
						Mortar	2
						Oyster	1
						Bone	13
						Pipe Stems	20
						Redware	4

Key:
w/ = with

The two other early, trash-filled post holes (192 and 198) lay amidst a cluster of features off the store's southwest corner, between the fence and the gully. Feature 198, an exceptionally large post hole for this site, measured 3.6' x 3.8' in plan (Figure 61). A 1.2' x 0.9' post stood along the hole's west wall, seated 0.75' into subsoil below the 0.5' deep hole. A soil sample from the hole's dark, organic-rich fill yielded comparatively high levels of all chemicals tested (pH - 6.6, phosphate - 360, potassium - 97, magnesium - 195, and calcium - 1700). The quantity of discarded food bone is unusual for a post hole at the site, and the chemical levels suggest vegetable food waste was probably buried in the hole along with the bones and shell. The dearth of ceramics and the number of tobacco pipe stems (20) also distinguish the assemblage from this feature (Table 77). It contained more tobacco pipe stem fragments than all the other features at the site combined. Unlike some other features in this west yard, which disturbed earlier sheet midden deposits, thus accounting for their artifact content, Feature 198 seems to have purposefully received household waste. Its original function remains enigmatic, however, as its location does not tie it into the nearby fenceline, the store or a discernible addition to the store, nor to any other structures distinguishable in the west yard. Perhaps it served as a post for tethering animals, such as those which hauled the wagon loads of goods from the landing to the store.

The final trash-filled post or plant hole in the west yard (Feature 192) proved more typical of the type (Table 77). It may very well contain redeposited early sheet refuse, as opposed to purposely buried trash. Although chemical levels were also elevated in Feature 192, they were in general lower than in Feature 198 (pH - 6.1, phosphate - 179, potassium - 139, magnesium - 133, and calcium - 920).

Another six post holes in the west yard contained smaller quantities of architectural materials, ceramics, glass, and bone (Table 78). The ceramics are most temporally diagnostic; all the types present were in production in the eighteenth century. The post in Feature 72 stood adjacent to one defining the early north-south fenceline (Feature 42) (Figure 26) and may have replaced it (Figure 62). Feature 186 held a slightly smaller post, which had nevertheless also been seated an additional 0.7' into subsoil below the floor of the hole. In contrast, the 0.9' post in Feature 190 ten feet northeast of Feature 186 was set in a shallow hole, only 0.4' into subsoil.

The other three post holes lay amidst the feature cluster off the store's southwest corner (Features 189, 193 and 199) (Figure 26). They too varied in shape, size, construction, and soil content. The holes themselves ranged from 1.1' to 1.9' in size and 0.5' to 0.9' in depth (Table 78), and held 0.6'-0.8' circular to oblong posts (Figure 62). Two of the holes (Features 189 and 193) had been dug so that the posts rested on their floors; in the third (Feature 199), the post was seated another 0.4' into subsoil. The original purposes of these posts remain indeterminate; they certainly point to active use of the yard for commercial as well as domestic activities.

Fourteen other features, probable planting holes, numbered among the cluster in a 20' x 35' area off the store's southwest corner (Figure 26). Two characteristics distinguish them from the post holes discussed above; none held discernible post molds, and they contained little or no cultural material (Table 79). Also, in general, the features are both smaller and shallower than the post hole and mold complexes, with only one exceeding 1.2' in diameter (Feature 187). The rest ranged between 0.5' and 1.2' in diameter. Further, with one exception (Feature 12), these features were rather shallow, extending between 0.4' and 1.15' below subsoil. More consistent in shape, 11 of the 14 appeared circular in plan. The artifact assemblages, though small, characterized the features in the west yard (Table 79).

In summary, comparison of the 26 features in the store's west yard revealed both differences and similarities. All can be broadly characterized as "post" or "plant" holes based on their shapes, sizes, and contents, and all could have originated in the last decade of the eighteenth or first decade of the nineteenth century, or in some cases earlier. They indicate the west yard served as a locus of household trash disposal for the early store's occupants. Some of the post holes may have formed a scaffolding system employed during construction of the store, and others may have been secondary or replacement components of the fenceline or perhaps associated with temporary constructions for loading and unloading merchandise or tethering animals. In general, the Whites, John Darrach, and their tenants used the west yard very intensively. The research team sought more specific insights from this archaeological record, however - relating to the activities undertaken in this yard and its use by the store's

TABLE 78

POSTHOLE FEATURES IN WEST YARD OF STORE

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
72	S7 W144	Circular Hole	Stepped, Hole,Mold; Sloping Walls, Flat Base	1'x 1' x 1.1'	Mold: Dark Brown Silty Loam Hole: Dark Brown Loam Mixed w/ Subsoil	Iron 1 Brick .5 oz Redware 1
186	S23.5 W159	Circular Hole, Mold	Sloping Walls of Hole Step Down to Straight Sided, Flat Based Mold	1.8'x1.4' x 2.2' Mold: .55'	Dark Brown Loam Flecked w/ Charcoal	Nail 1 Iron 1 Brick 5/.5 oz Bone 2 Tumbler 1 Pipe Stems 4 Bottle Gl 1
189	S46.1 W157.5	Rectan-gular Hole; Oblong Mold	Both: Sloping Walls; Flat Base	1.4'x1.1' x .5'	Mold: Dark Brown Loam Hole: Brown Clayey Loam Mottled w/ Subsoil	Redware 1
190	S13.7 W155	Rectan-gular Hole; Circular Mold	Sloping Walls; Flat Base	1.9'x1.5' x .7' Mold: .9'	Mold: Dark Brown Loam Hole: Yellowish-Brown Loam	Bottle Gl 2 Window Gl 1 Glass 1 Nail 1 Iron 1 Redware 5 Tin Glazed 1 Stafford-shire 1

TABLE 78 (cont.)

Fea. No.	Midpoint	Shape Plan	Shape Profile	Size	Soils	Artifacts
193	S44 W143.5	Circular Hole and Mold	Straight Walls; Flat Base	1.9'x1.7' x .9' Mold: .6'	Mold: Dark Gray Sand Hole: Orange Sand	Brick .5 oz Bottle Gl 2 Bone 1 Redware 1
199	S35 W145	Square Hole; Circular Mold	Hole: Sloping Walls; Rounded Base Mold: Sloping Walls; Flat Base	1.5'x1.5' x .9' Mold: .8'	Dark Grayish-Brown Loam	Nails 3 Redware 1

Key:
Gl = Glass
w/ = with

FIGURE 62

Select Profiles, Post Holes in West Yard of Store (Features 72, 189, 199)

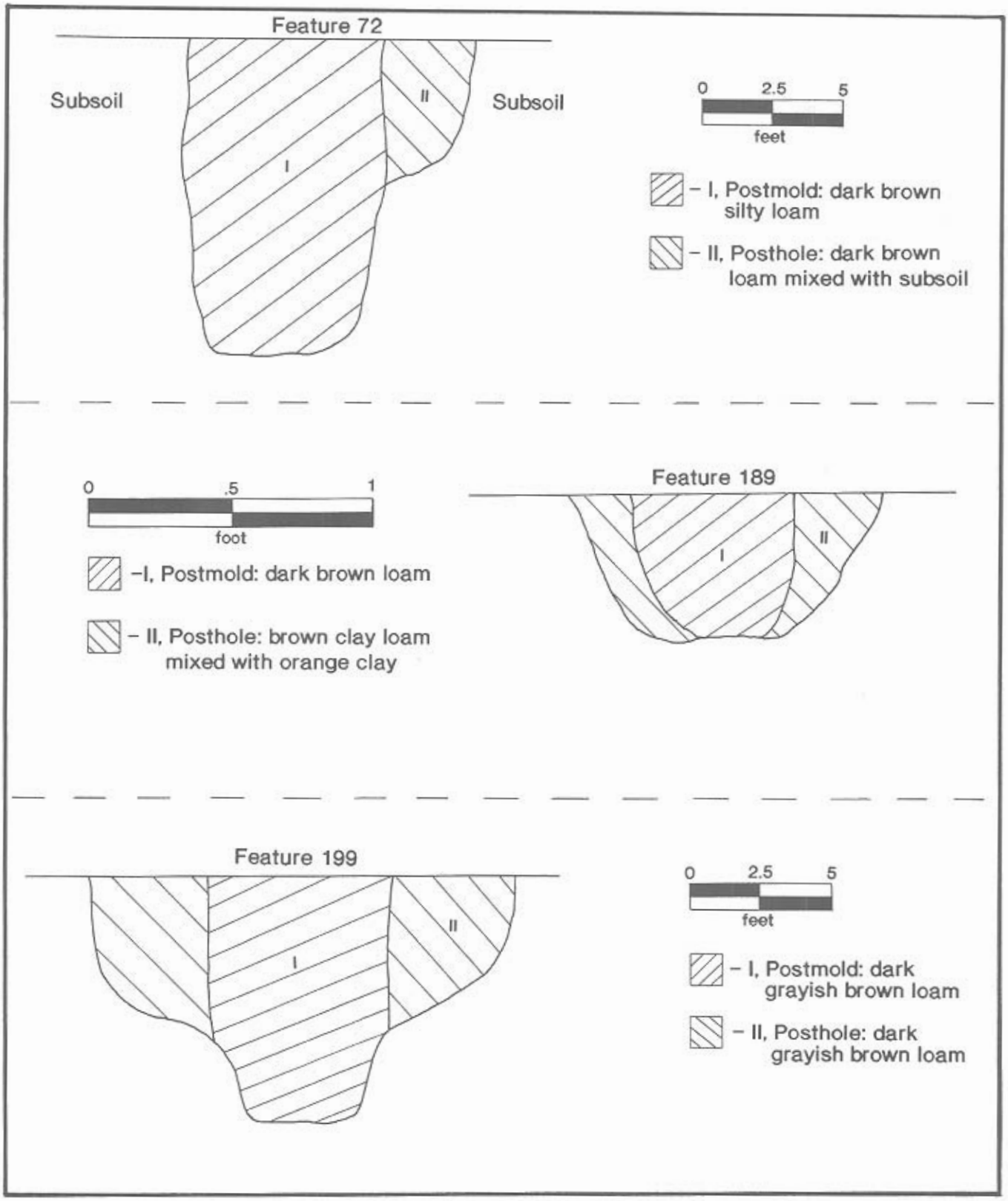


TABLE 79

POST OR PLANT HOLE FEATURES IN WEST YARD OF STORE

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
12	S44.5 W137	Circular	Sloping Walls; Sloping Base	1.2′ X 1.2′ X 1.5′	Medium Brown Loam	--
14	S34 W130.5	Circular	Sloping Walls; Rounded Base	.9′ X .9′ X .4′	Medium Brown Loam w/ Subsoils and Gravels	Brick 3 + .75 lb
15	S32.9 W135.5	Square	Sloping Walls; Irregular Base	1′ X 1′ X .4′	Dark Brown Loam Mottled w/ Subsoil and Gravels	--
23	S32.7 W137	Circular	Sloping Walls; Sloping Base	.7′ X .7′ X .4′	Dark Brown Loam Mottled w/ Subsoil and Gravels Flecked w/ Charcoal	--
179	S40 W155.3	Circular	Sloping Walls; Flat Base	1′ X 1′ X .85′	Dark Brown Loam w/ Subsoil Lenses	Iron 1 Bone 1 Pearlware 2 Transfer-Printed PW 1 Painted PW 1

TABLE 79 (cont.)

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts
181	S37.3 W155.5	Circular	Straight Walls; Flat Base	1.2′ X 1.2′ X .5′	Dark Brown Clayey Loam Flecked w/ Brick	Brick 1 oz Wrought Nail 1 Redware 9 Tin-Glazed 1
182	S24.5 W156	Circular	Shallow Bowl	.6′ X .6′ X .6′	Dark Brown Loam Flecked w/ Charcoal	--
184	S35.7 W155	Circular	Straight Walls; Flat Base	1.1′ X 1.1′ X .5′	Dark Brown Loam Flecked w/ Brick	Brick 5 oz Bone 1
185	S36.3 W156	Circular	Straight Walls; Flat Base	.5′ X .5′ X .5′	Dark Brown Loam	Redware 1
187	S37.4 W159.5	Square	Straight Walls; Flat Base	1.8′ X 1.8′ X 1.15′	Dark Brown Loam Flecked w/ Brick and Lined w/ Orange Sand	Brick 1.25 lb Redware 2 Iron 4 Shell 1 Glass 2

TABLE 79 (cont.)

Fea. No.	Midpoint	Shape Plan	Profile	Size	Soils	Artifacts	
188	S40.5 W161.7	Rectan-gular	Straight Walls; Flat Base	1.05′ X.85′ X .85′	Dark Brown Loam Flecked w/ Brick and Charcoal	Redware Creamware	1 1
191	S42.2 W162.5	Circular	Straight Walls; Flat Base	1′ X 1′ X .35′	Dark Brown Loam Flecked w/ Brick	--	
195	S43.5 W147.2	Circular	Sloping Walls; Flat Base	.9′ X .75′ X .45′	Dark Brown Loam	Redware	1
196	S41.6 W146.5	Circular	Straight Walls; Flat Base	.75′ X .75′ X .5′	Dark Brown Loam	--	

tenants, the storekeepers, their customers and others involved in the commercial aspects of operating the store. Unfortunately, achieving such a focussed view of the activities which formed the day-to-day routines of the past will require further methodological sophistication.

Features at the Western Edge of the Outbuildings' Workyard, North of the Pond

These two post features (180 and 183) occur in relative isolation approximately 10' east of Feature 234B and 30' southwest of the southwestern corner of Outbuilding I (Figure 26). They stood along the main northeast to southwest trending fenceline alignment, but 30' beyond the nearest features of that fenceline. Feature 183 contained clear evidence of a post set in a hole. The square hole measured 1' on a side and extended to a depth of 0.6'. The 0.4' diameter round post stood in the hole's northeastern quadrant. A fragment of a molded olive 'wine' bottle and a few tiny brick spalls were recovered from the dark organic remains of the post mold, and brick fragments and two clam shells were found in the backfilled post hole.

Feature 180 lay only 2' away from Feature 183 (Figure 26), and was similar in form and contents, but had no discernible post mold. The square post hole measured 0.7' on a side, and bottomed out 0.65' below subsoil. It contained a medium brown fill with decaying fragments of brick, clam shell, oyster shell, and a creamware plate rim sherd.

Features just South of Main Northeast-Southwest Fenceline

Two unidentified features (Features 134 and 142) occupied the corner formed by the intersection of the northwest to southeast fenceline separating the middens and workyards with the main northeast to southwest fenceline. Feature 134 actually sits in the northeasterly trending fenceline (Figure 26), but its size and fill distinguish it from the post and plant holes of that complex. An irregular oval in plan, Feature 134 measured 3.4' in length and contained a very dark grayish-brown, organic-rich silty loam. The shallow bowl-shaped feature extended only 0.45' below subsoil and contained no cultural material. A soil sample yielded elevated but not excessively high levels of pH (6.4), phosphate (53), magnesium (129) and calcium (1010). Despite the organic nature of the soil, for instance, phosphate levels did not begin to approach those of the privy (Feature 132 - 1305), and potassium levels did not exceed the subsoil average.

Feature 142, a large north-south trending ovoid feature, almost adjoined Feature 134 to its south (Figure 26). Measuring 6' in length by 4.25' wide, it featured sloping walls and a rounded base, bottoming out at 1.3' below subsoil. A dark yellowish-brown silty loam lay in a shallow depression atop the feature; a light yellowish-brown and yellowish-brown silty loam filled the feature itself. Its size and regular profile distinguish it from both rodent and tree holes; soil chemical analysis produced readings similar to those from Feature 134, despite the visual differences in the soils and their organic content: pH (6.9), phosphate (83), magnesium (168), and calcium (980). Potassium levels did not exceed the subsoil average. Fragments of brick, an unidentifiable nail, a piece of oyster shell, and a redware sherd comprise the artifact assemblage. Although the feature's function and date remain unknown, its intrusion by Feature 141 (see Northeast to Southeast Fenceline, above) demonstrates that it predates at least one generation of the main northeast to southwest fenceline. Feature 141 contained only one sherd of redware and brick, of no assistance in absolute dating of this feature.

Features in the Southeast Quadrant, in the Vicinity of the Two Fire Pits (Features 83 and 84)

The three post/plant hole features in this portion of the site contained no cultural material, yet in form appeared cultural. Due to the lack of cultural material, they cannot be dated. Feature 159 (Figure 26), a large circular post hole, lay on the alignment of the fenceline separating the workyards, wells and outbuildings from the middens, but 18' south of the nearest post of that fence. Its dark brown fill extended to a depth of 2' below subsoil and contained charcoal and brick flecks. A soil sample taken from the 1.3' diameter feature did not yield elevated levels of any of the tested chemicals.

Features 161 and 162 lay closer to the two fire pits (Figure 26). Feature 161, a circular (1' in diameter) post or plant hole, extended only 0.5' into subsoil and was filled with a medium brown silty loam. Feature 162, larger (1.3' x 1' x 0.9') and more rectangular, contained dark brown silty loam.

The fire pits lay just south of a pair of trees, but it is unclear whether the features comprising the complex are contemporary. The yellowish-brown loam of Feature 164, less than 10' north of one of the fire pits (Feature 83), contained burned root fragments and charcoal. However, the feature offered no evidence of an in situ fire such as that documented for the fire pits. The tree hole itself appeared as a bowl-shaped sub-rectangular depression measuring 2.5' x 1.6' x 0.75' deep with; no cultural material.

The second tree (Feature 160) stood 10' further west (Figure 26). This circular tree hole measured 3' in diameter, and was excavated to a depth of 3.3'. Disturbed by rodents, the hole contained a mixture of fills, but predominantly a loose, organic dark brown to dark grayish-brown loam flecked with decayed brick. Redware sherds, cut nails, nineteenth century bottle glass, oyster shell, and much bone were retrieved from the fill. Only one of the badly fragmented and deteriorated bones, a right humerus from a cow, was identifiable. Two soil chemical samples yielded wildly variant readings, especially in the phosphate and calcium levels. The former ranged between 100 and 1046 (the latter possibly associated with the rodent disturbance); calcium levels ranged between 460, considerably lower than the subsoil average of 800, and 2200.

Features West of the Gully

In addition to the fenceline west of the gully (see above), two other features (201 and 208) were discovered lying between it and the fenceline (Figure 26). Probable plant holes, they contained dark brown clay loam fill. Square and rectangular in plan, respectively, they extended 0.5' and 0.8' into subsoil. Their sizes were typical of the site's plant and post holes, ranging between 0.8' and 1.6' in plan. Only Feature 208 contained cultural material, a fragment of an iron strap.

Features: Special Artifact Studies

The following sections present overview analyses of the two principal artifact classes recovered from the features at the Darrach Store site. These reviews of the ceramic collections and faunal remains serve as points of comparison for the studies of the ceramics and bone recovered from individual features, and presented above. Differences between the assemblage from an individual feature or group of features and the total collection assists in interpreting variability both as a function of time and feature use.

Ceramic Vessels

The store's tenants and storekeepers deposited portions of a minimum of 251 ceramic vessels in features across the site beginning sometime prior to 1775 and ending with the store's demolition in the mid to late 1860s (Table 80). To speak of vessels, however, is to a certain extent misleading given the nature of the feature assemblages. Of the 251 "minimum" vessels, fewer than 10% could be reconstructed to 50% or greater completeness. Only one or two diagnostic rim or base sherds distinguished many vessels, leaving hundreds of small body sherds unassignable to particular vessels. Undecorated or minimally decorated redwares and refined white earthenwares, the bulk of the collection, proved especially problematic. The common occurrence on urban sites (and certainly on other non-urban sites as well) of deep features such as wells and privies filled with ceramics, bottles and glassware broken into comparatively large pieces and almost 100% reconstructable, did not occur at the Darrach site, not even in the three wells and two privies. Fragmentation was consistently great, with many of the 2662 ceramic sherds recovered from the features smaller than 1" square. The 10,160 sherds retrieved from the 25% sample of the plow zone excavated within the site's core area posed even more problems. Not included in the present analysis, they form the subject of a distribution analysis reported in a later section.

TABLE 80

MINIMUM NUMBER OF CERAMIC VESSELS, FEATURES

Type	Artifact Counts	Subtotal	Total	% of Tot. Ass.
REDWARE				
Tableware				
Platters/Plates	4			
Bowls	9			
Mugs	1			
Subtotal		14		
Teaware				
Teabowls	1			
Subtotal		1		
Food Preparation				
Bowls/Pans	12			
Milk Pans	2			
Cooking Pot	1			
Cooking Pot Lid	1			
Subtotal		16		
Food Storage				
Pots	14			
Jugs	3			
Subtotal		17		
Tableware, Food Preparation or Storage				
Hollowwares	4	4		
Chamberpots	2	2		
Unidentifiable				
Hollowwares	8			
Unidentifiable	49			
Subtotal		57		
Total			111	44%

TABLE 80 (cont.)

Type	Artifact Counts	Subtotal	Total	% of Tot. Ass.
SLIP-DECORATED REDWARE				
Food Preparation and/or Tableware				
"Pie" Plates/ Platters	14*			
Bowls	12			
Subtotal		26		
SLIP-DECORATED REDWARE (cont.)				
Tableware				
Bowls	9	9		
Unidentifiable	1	1		
Total Slip-Decorated Redware			36	14%
STAFFORDSHIRE				
Tableware				
Posset Mugs	2	2		
Total Staffordshire			2	1%
TIN GLAZED EARTHENWARE				
Tableware				
Plate/Platter	1			
Hollowwares	4			
Subtotal		5		
Total Tin Glazed Earthenware			5	2%
CREAMWARE				
Tableware				
Plate/Platter				
Molded	9			
Shell Edged	1			
Whieldon	1			
Pitcher	1			
Serving Bowl Lid	1			
Bowl (Whieldon)	1			
Subtotal		14		

* - 2 exhibit evidence of cooking, burning

TABLE 80 (cont.)

Type	Artifact Counts	Subtotal	Total	% of Tot. Ass.
Teaware				
Teabowls	3			
Tea Pot/Creamer				
Molded	1			
Subtotal		4		
Tableware or Teaware				
Hollowwares	2			
Transfer-printed	1			
Subtotal		3		
Total Creamware			21	8%
PEARLWARE				
Tableware				
Plate/Platter				
Molded	1			
Shell Edged	10			
Painted	1			
PEARLWARE (cont.)				
Transfer-printed	2			
Bowls				
Annular	1			
Painted	3			
Subtotal		18		
Teaware				
Tea Bowls				
Painted	4			
Transfer-printed	2			
Saucers				
Shell Edged	2			
Sugar Bowl/Creamer				
Annular	1			
Subtotal		9		

TABLE 80 (cont.)

Type	Artifact Counts	Subtotal	Total	% of Tot. Ass.
Tableware or Teaware				
Painted	5	5		
Total Pearlware			32	13%
WHITEWARE				
Tableware				
Plate/Platters				
Shell Edged	2			
Painted	1			
Transfer-printed	3			
Bowls				
Annular	2			
Transfer-printed	1			
Subtotal		9		
Teaware				
Tea Bowls				
Painted	2			
Sponged	2			
Saucers				
Painted	1			
Sponged	1			
Subtotal		6		
Unidentifiable				
Hollowware				
Annular	4			
Painted	1			
Sponged	1			
WHITEWARE (cont.)				
Transfer-printed	1			
Subtotal		7		
Total Whiteware			22	9%

TABLE 80 (cont.)

Type	Artifact Counts	Subtotal	Total	% of Tot. Ass.
YELLOWWARE				
Food Preparation				
Bowl	1	1		
Unidentifiable	1	1		
Total Yellowwware			2	1%
STONEWARE				
Tableware				
Plates/Platters	1			
Mug		1		
Subtotal		2		
Teaware				
Tea Bowls				
Scratch Blue		3		
Enamelled		1		
Saucer		1		
Teapot				
Black Basalt	1			
Subtotal		6		
Food Storage				
Jug		1		
Pot/Jar		1		
Subtotal		2		
Total Stoneware			10	4%
PORCELAIN				
Tableware				
Bowls				
Painted	2	2		
Teaware				
Tea bowls				
Painted	5	5		
Unidentifiable	3	3		
Total Porcelain			10	4%

Total Vessels = 251

Key:
% of Tot. Ass. = Percentage of Total Assemblage

The analysis proceeded based on the classification of the 251 vessels by ceramic ware, decorative type, and functional role, principally within the foodways system. Only the two redware chamberpots can be definitively attributed to a function outside of food preparation, storage, and consumption. The idiosyncrasies of use, however, introduce a caveat into functional analysis such as this that reaches beyond the etic vs. emic debate. It relates to the normative nature of functional attributions, and is not merely a matter of whether a redware "pan" was a "pan" or a "bowl" but how it was used by its owner. The same vessel might have been used for mixing ingredients, for baking a pot pie, for serving that pie on the table, and as a container for fruits, vegetables, or other foods. Not only could and certainly did different households use the same vessel types in different ways, many vessels also probably served multiple functions within a single household. In the above example, for instance, that redware "pan" should be included in the Tableware, Food Preparation, and Food Storage categories in Table 80. Some vessel forms are more problematic in this regard than others, for example, fewer possibilities exist for the use of a saucer or pitcher than for some more utilitarian vessel. Nevertheless, one must recognize the limitations of functional interpretations such as those attempted here.

Redwares, which dominate the ceramic assemblages from the site as a whole and from all the principal features (store foundations and cellar, wells, privies, midden, gully), proved most problematic for functional classification (Table 80). Initially, the redware collection was divided into minimally decorated glazed vessels and the slip decorated forms. Together, they account for 58% of the ceramic vessels reconstructed from the features.

The redware assemblage contains a limited number of distinct forms: drape molded plates or platters with coggled rims, mugs, jugs, milk pans (defined here as having straight walls sloping up to a rim that usually incorporated a pouring lip), pots (defined as having greater height than width, and nearly vertical straight, curving or sloping walls), cooking pots (pots that exhibited evidence of cooking or burning), and bowls (similar in form to milk pans, but with curving walls and often occurring as decorated and/or in a refined red earthenware). The assumptions regarding the "principal" function of each form have structured the categorization employed in Table 80. Even considering the likely, or at least possible, multifunctional role of these vessels in the household, redwares clearly form the dominant ceramic type utilized in food storage, preparation and cooking throughout the store's occupation. The number of refined and slip decorated red earthenware vessels (included in Table 80 as Tableware and in the case of Slip Decorated Redware as Food Preparation and/or Tableware) also indicates considerable use in food serving, both as individual settings of a plate or bowl and as serving pieces.

Aside from the relative lack of formal diversity and the potential for multifunctional use among the redwares, this assemblage exhibits one other striking feature -- a great variability within the individual formal types. A qualitative examination of the 147 redware vessels revealed truly notable diversity in pastes, glazes, and formal features such as rim profiles. For example, several different coggling devices and techniques of application were noted among the 18 drape molded plates/platters. Similar diversity characterized the slip decorated vessels. At least three distinct techniques of application were represented: 1) simple trailing of a white slip over the redware body; 2) incising a decoration into the surface of the leather-dry vessel, applying a white slip over the entire surface, and then removing the slip from the raised areas, leaving it in the incisions; and 3) applying the white slip over the entire surface, then combing or swirling it to reveal the redware body in a pattern through the slip. These different techniques produced numerous individual decorative treatments, often in combination with metallic coloring agents such as copper oxide added to the glaze. The latter also forms the principal source of variability in the surface appearance of the minimally decorated redwares.

Although the redware industry in the Philadelphia area and Delaware has been only minimally studied in terms of understanding the variability in products within and between eighteenth and nineteenth century shops, the assemblage from the Darrach Store site clearly includes vessels produced by a number of different potters. Several vessels, especially the slip decorated bowls, closely resemble those produced in Philadelphia in the latter part of the eighteenth century (De Cunzo and Thatcher 1979). The diversity is too great to explain away as a function of time alone, although redwares continue in importance in the store households' foodways through the middle of the nineteenth century. Nevertheless these vessels were seemingly acquired from more than one source at the same

time, the diversity not merely representing changing sources over time. The variability is no less in the assemblages from individual features filled over comparatively short time periods.

Following the redwares, refined white earthenwares account for the next greatest proportion of reconstructed ceramic vessels from the Darrach Store features. Between 8% and 13% of the vessels are creamware, pearlware, and whiteware (Table 80), and together these types comprise about 30% of the collection. Unlike the redwares, however, they represent more of a temporal, technological progression over the course of the latter eighteenth and nineteenth centuries. On a site occupied from before 1775 until the 1860s, one expects to find all three types present. Their approximately equal representation, however, may be misleading. Differences in the formal types comprising each assemblage indicate changing ceramic use and foodways masked by the uniformity of mere numbers of vessels.

The vessel forms present in creamware, pearlware and whiteware indicate an increasing diversity of forms over time, and a decrease in the number and proportion of flatwares. Two-thirds of the creamware vessels are plates or platters, compared to 56% of the pearlware vessels. Hand painted hollowwares and teawares are more numerous in pearlware. This trend continues into the nineteenth century with the whitewares. Here tablewares and teawares are more equally distributed and hollowwares prevail over plates. Refined white earthenwares apparently increasingly replaced redware on the table, especially in the hollowware forms. Although perhaps a simple function of changing production patterns, it nevertheless had wider implications. The lack of maker's marks on the whitewares preclude determining whether regionally produced (eg. in Trenton, New Jersey or the Ohio potteries) or English whitewares replaced the locally or at least regionally produced redwares in the mid-nineteenth century. This question becomes significant at the point of intersection of the household and the economy in which its members participated. Alone, the ceramics form only one source from which to draw limited conclusions; however, when considered in conjunction with the documentary, faunal and other archaeological evidence, changing household patterns begin to emerge. These evolving patterns, along with the larger local and ultimately international changes to which they related, form the subject of this report's concluding section.

The store's earliest eighteenth century occupants supplemented redwares on their table with creamware, white stoneware, and Whieldon plates, a few tin glazed and creamware bowls, and an unknown quantity of nonceramic forms such as wooden and pewter vessels (cf. Martin 1989). An overall impression of variety and utility was produced although the white earthenwares may have been separated from the others in thought and in use as a "best" set. Later, and especially in the nineteenth century, decorated white earthenware bowls, especially the annular wares, replaced the redware bowls. Teawares were comparatively few, and always almost exclusively the more expensive, highly decorated refined wares - scratch blue and enameled white stonewares, black basalt, molded creamware, decorated pearlware and whiteware, and porcelain. Altogether, the 31 teaware vessels account for only 12% of the assemblage. Finally, ceramic sets and the most expensive wares available, porcelains later supplemented by transfer printed refined earthenwares, virtually do not exist in the collection. The trailed slip decorated redware bowls in the Philadelphia style, some creamware and pearlware plates, and a few matching tea cups and saucers, form the only exceptions.

The origins of the ceramic collection is also at issue. Do these vessels represent broken and discarded store inventory and/or the household wares of the store's tenants? To approach this question, the 251 reconstructable ceramic vessels were examined for evidence of use. Only 97 vessels (or 39%) were complete enough to determine if the vessel had been used, resulting in footrest abrasion, scratching of the inner surface by utensils, and/or abrasion of the widest point on the vessel's exterior surface (eg. rim edges where they would rub or otherwise come into contact with other vessels). Only 10 of the vessels exhibited none of these use wear marks. These include a few redware jugs and storage pots and the black basalt teapot; one would expect little evidence of wear on such vessels even if used and thus the percentage of unused vessels is probably even smaller. Some vessels, such as the creamware and pearlware plates and several of the slip decorated redware bowls, show much wear. The sample of ceramic vessels from the features thus suggests the archaeological assemblages from the Darrach Store site originated not in the store per se but in the store's tenant households, a conclusion supported by the nature of the features themselves. This does not, of course, preclude their ultimate origin in the store, and

introduction to the archaeological record via the tenants who purchased and used them. This question in particular can be addressed through comparing the archaeological assemblage with the documentary evidence.

Five documents form the comparative data base: 1) the inventory (1778) of William White's home - White originally owned the store; 2) the inventory (1798) of John Griffin, a possible tenant in the latter eighteenth century; 3) the inventory (1805) of John Darrach's household possessions; 4) the inventory of Darrach's store as recorded in the sale records from his death in 1805; and 5) the inventories of the two Smyrna merchants for whom early nineteenth century account books have survived.

None of the inventories record household ceramics or other table and kitchenwares in any detail. White's inventory lists "1 Silver Cream Pot" and "Earthenware" (William White, Kent County Probate Records, 1778); Griffin's notes "Sundry small articles in Kitchen" and "Parcel Cubboard furniture" (Appendix IV); and even John Darrach's 1805 inventory includes only a "Lot of Coarse Ware," "Crockery Ware in Corner Cupboard" and "Silver Plate" (Appendix V). Among the possessions of all three decedents, ceramic table and kitchenwares obviously accounted for comparatively little of the total estate value and thus warranted little attention by the appraisers. The three sets of entries; however, are not at all at odds with the archaeological record of ceramics at the Darrach Store site - principally coarse wares and earthenware crockery.

Better documentation of the ceramics available to, and ultimately desired by, the local Duck Creek community in the early nineteenth century occurs in the Darrach sale inventories and the Coombe and Allee account books. At the time of his death, Darrach carried redwares, refined white earthenwares and porcelains in his store. A consecutive series of lots at the second liquidation sale in March 1805 consisted of bowls, pint bowls, milk pans, basins, dishes, pitchers, pots, small pots, jugs, quart jugs and half gallon jugs, probably of redware (Appendix VII). Possibly excepting pitchers, each of these redware forms appears in the archaeological assemblage from the store site. In addition, the auctioneer sold refined white earthenware pitchers, teapots, coffee pots, sugar dishes, cream jugs, cups and saucers, plates, dishes, wash basins, nibbs, mugs, and bowls. The lots often consisted of "1 doz. plates" for example, but complete dinnerware services were not sold as such. The sale inventories provide little information on the decorative types of these vessels, although a few entries appear for white, blue edge, and flowered vessels. Many of these ceramic types occur also in the archaeological assemblage, but Darrach appears to have sold a greater variety of refined white earthenwares than his tenants at the store purchased, or at least discarded. A higher rate of curation may be expected, but several of the creamware and pearlware plates especially bore evidence of much use. Finally, Darrach's inventory in 1805 also included a small quantity of "china," presumably porcelain teawares.

Of the two Smyrna merchants whose accounts were examined for 1809-1810, Jonathon Allee by far sold the greater quantity and variety of ceramic wares. His inventory, too, included redwares, refined white earthenwares and porcelain. Entries appeared for crockery, earthenware, earthen pots and jars, milk pans, and 85 jugs (of quart to one and one-half gallon capacity, virtually always sold with a corresponding quantity of liquor). Interestingly, his refined white earthenware sales did not include plates; instead only bowls, dishes, pitchers, wash basins, coffee pots, teapots (with Queensware specifically identified), creamers, and cups and saucers are noted. Finally, he too sold china - bowls, plates, cups and saucers, and sugar dishes as well as complete sets. A greater difference exists between the Darrach assemblage and Allee's refined white earthenware and porcelain sales than between the assemblage and the Darrach sale inventories. Except for a few bowls, teawares comprise the site's small porcelain collection. In addition, many of the refined earthenware forms Allee sold do not occur in the site assemblage, such as pitchers, wash basins, and coffee pots.

The archaeological assemblage of ceramic vessels from the Darrach Store site suggests tenants either not concerned with or unable to invest much in expensive tablewares, teawares, and display pieces. Although consumption patterns changed over time, at least in part as a function of changes in production, this particular pattern does not. Brightly decorated annular bowls increasingly replace decorated redwares on the dinner table, but not expensive porcelain or even transfer printed earthenware dinner services. Comparing the assemblage to the store sale and merchant's account records, both the reliance of Duck Creek residents on the merchandise available

in the local stores and some sense of the variability of consumption patterns within the community in the early nineteenth century become evident. All the early nineteenth century ceramic types and forms recovered from the Darrach Store site appear in the inventories of the three local stores. On the other hand, certain vessel forms and ware types are not represented or are underrepresented in the archaeological assemblage compared to the documented store inventories. In particular, these include specialized tableware, chamber forms, and porcelain tea and dinner services. Clearly some Duck Creek residents pursued a different domestic strategy than the store's tenants, at least in terms of their ceramic consumption patterns. For them, tablewares and teawares carried social value, and served as symbols of economic and ultimately social differentiation within the Duck Creek community. The Darrach Store tenants, however, fell among the undifferentiated.

Faunal Remains

The features at the Darrach Store site produced 914 animal bones and bone fragments. As with the ceramics, many were broken, often fragments were no larger than 1" square. As a result, only 533 or 58% were identifiable. Mending of fragments has reduced the identifiable specimen count to 340; these form the basis of the following analysis.

TABLE 81

FAUNAL ASSEMBLAGE, FEATURES

	Number of Specimens	Percentage	MNI
Bird	69	20%	?
Cat	3	1%	1
Cow	81	24%	4
Dog	1	<1%	1
Fish	5	1%	1 Perch
			2 Catfish
Goose	11	3%	2
Horse	4	1%	1
Muskrat	39	11%	4
Opposum	2	<1%	1
Rabbit	1	<1%	1
Rat	28	8%	4
Sheep	12	4%	1
Squirrel	1	<1%	1
Turtle	9	3%	1
Pig	74	22%	2
Total	340	98%	25

Key:MNI = Minimum number of individuals

The animals represented in the assemblage (Table 81) can be categorized in several ways:

Domestic, edible:	Cow (Bos) Pig (Sus) Sheep/Goat (Ovis/Capra) Chicken (may be among unspecifiable Bird in this assemblage)
Domestic, other commercial or economic uses:	Horse (Equus) Sheep/Goat (Ovis/Capra) Cow (Bos) Pig (Sus) Chicken
Domestic, pets:	Cat (Felis) Dog (Canis)
Wild, edible:	Fish (includes Ictalurus punctatus and Perca) Goose (Branta) Muskrat (Ondatra Zibethicus) Opossum (Didelphis Marsupialis) Rabbit (Sylvilagus) Squirrel (Sciurus) Turtle Bird (unspecifiable)
Wild, other commercial or economic uses:	Goose (Branta) Muskrat (Ondatra Zibethicus) Opposum (Didelphis Marsupialis) Rabbit (Sylvilagus) Squirrel (Sciurus) Bird
Other (Commensal):	Muskrat (Ondatra Zibethicus) Opossum (Didelphis Marsupialis) Rabbit (Sylvilagus) Squirrel (Sciurus) Turtle Rat

The store's tenants could have raised the cow, pigs, sheep, and the chicken, possibly represented among the unspecifiable birds, either as food for themselves, as "cash crops" for sale, or for both purposes. Alternatively, they could have acquired them alive or as butchered cuts of meat for food. The horse probably served for transportation and/or as a draft animal, while the cat and dog were most likely household pets. Fish, geese, muskrats, opossum, rabbits, squirrels, turtles and birds, especially water fowl, all represent locally obtainable wild food sources, although several of them too may have been acquired for other purposes. The 1809-1810 store accounts of Smyrna merchants Coombe and Allee include notations of feathers and furs received from their customers as payment of debts. Finally, some of the animals, most likely the rat but also perhaps the muskrats, opossum, rabbit, squirrel and turtle, may not have been exploited for either food or other economic purposes, but rather merely made their way onto the site, died, and ended up in one of the excavated features. Refining our understanding of the store

TABLE 82

CUT BONE, FEATURES

	Number of Specimens	Percentage
Bird	2	5%
Goose	2	5%
Cow	17	40%
Muskrat	9	21%
Pig	11	26%
Squirrel	1	2%
Total	42	99%

Bird - 2 specimens (cut), both have knife marks
Goose - 2 specimens (cut), both have knife marks
Cow - 17 specimens (cut), 6 have knife marks
5 were chopped
3 defleshing knife marks
1 split down center (vertebrae)
2 cut (means unknown)
Total 17

Muskrat - 9 specimens cut, all were knife marks.
6 of these were cut for foot removal as when an animal is skinned for food or fur.

Pig - 11 specimens cut, 6 knife defleshing marks
1 sawn and defleshing marks
1 sawn
2 chopped
1 cut (means unknown)
Total 11

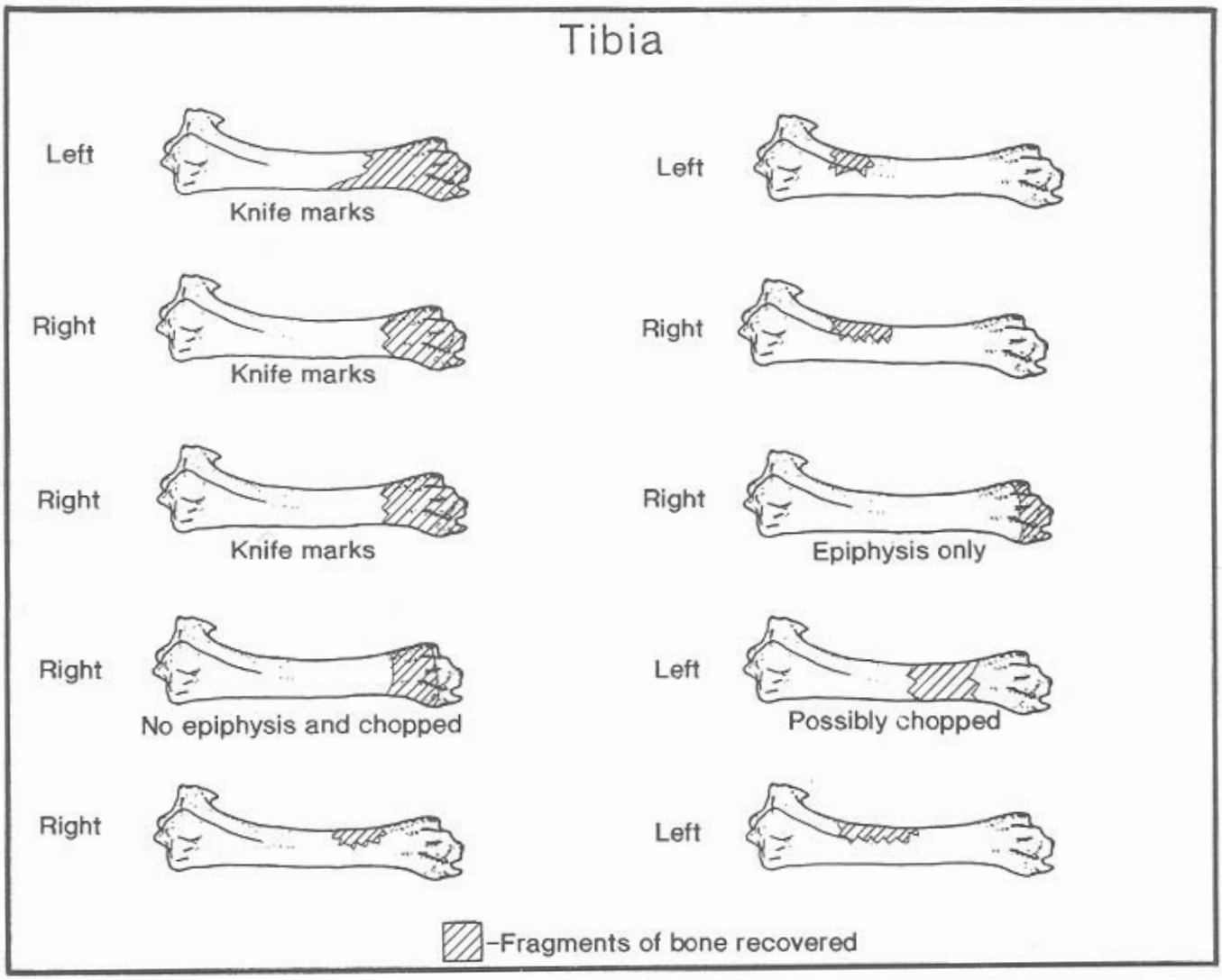
Squirrel - 1 specimen cut, knife defleshing marks

occupants' specific use of these animals through consideration of butchering marks and the distribution of the elements present constitutes a principal goal of this analysis.

Only 42 (12%) specimens exhibited evidence of butchering, and therefore of use as food (Table 82). Even though 67% of the cut bones are from domestic cow and pig, that 14 of these specimens are from wild species whose presence on the site may have otherwise been interpreted in other ways is nevertheless significant. The two bird bones remain problematic, as they could be domestic chicken bones; nevertheless, the store tenants hunted or trapped and utilized for food at least one goose, muskrat and squirrel. The muskrat butchering marks also support the supposition the tenants exploited these animals both for their fur and as a food source. Knife defleshing marks, produced during meat removal after cooking, occurred more frequently than butchering marks among all species represented by cut bone. These very thin, precise cuts occur on 71% of the cut bones. The remaining 29% were

FIGURE 63

Fragments of Bos Tibia Represented, Faunal Collection from Features



either sawn, chopped, split or cut by an undetermined means. In general, a higher percentage of butchering marks would be expected were butchering of domestic species also occurring on site.

Two points warrant emphasis here, before proceeding with the analysis. They pertain to limitations placed by the nature of the assemblage. The first is the extremely fragmented condition of the collection, the second relates to dating faunal remains. One intended component of this analysis was the identification and distributional study of the cuts of meat from the domesticated fauna, particularly cow, pig, and sheep. This, however, requires a collection of comparatively complete specimens so that, for example, the butchering of long bones in such a way as to suggest a roast, steak or soup cut can be identified. This collection, in comparison, includes virtually no complete bones; refer as an example to Figure 63, which illustrates the fragments of cow tibias in the collection. The extremely small number of butchering marks present on the identifiable bone compound the problem. Only 12

TABLE 83

DATA ON AGE AT DEATH OF ANIMALS

	Number of Specimens	Age
Pig	1	< 1 yr.
	1	< 3 yrs.
	1	< 3.5 yrs.
	4	> 1 yr.
	3	> 15 mos.
	1	> 2 yrs.
Total	11	
Cow	1	c < 10 mos.
	2	b < 2 yrs.
	1	b < 3 yrs.
	1	b < 3.5 yrs.
	1	b > 1 but < 3.5 yrs.
	2	a,b > 12 mos.
	1	a,b > 18 mos.
	4	a,b > 2 yrs.
	4	a > 3.5 yrs.
Total	17	
Horse	1	> 3.5 yrs.
Sheep	1	> 21 mos.

Pig	Specimen	Age	Specimen	Age
	Tibia	> 2 yrs.	2nd Phalanx	> 1 yr.
	Humerus	< 3 yrs.	2nd Phalanx	< 1 yr.
	Humerus	< 3.5 yrs.	Molar	> 15 mos.
	1st Phalanx	> 1 yr.	Molar	> 15 mos.
	1st Phalanx	> 1 yr.	Molar	> 15 mos.
	1st Phalanx	> 1 yr.		

11 specimens were able to be assigned ages.

Cow	Specimen	Age
	5 Tibia	> 2 yrs, > 2 yrs, > 2 yrs, < 2 yrs, < 2 yrs
	2 Femora	> 3.5 yrs, < 3 yrs
	Metatarsal	> 2 yrs
	1st Phalanxi	> 18 mos.
	3 Radii	> 3.5 yrs, > 3.5 yrs, between 1 - 3.5 yrs
	4 Humeri	> 3.5 yrs, > 12 mos., < 3.5 yrs, > 12 mos.
	Scapula	< 10 mos.

TABLE 83 (cont.)

17 specimens were able to be assigned ages

Horse	Specimen	Age
	Molar	> 3.5 yrs

Sheep	Specimen	Age
	Radius	> 21 mos.

of the assemblage of 340 bones exhibited butchering marks. These limitations preclude conducting a quantitative analysis of the cuts of meat represented by the cow, pig, and sheep bones.

The gnawed bone present on the site also speaks to the possible activities of the dog, cat, rats and other scavengers represented in the archaeological assemblage. Despite the fact that a minimum of four rats (and probably many more) have scavenged the site, only nine bones exhibited evidence of gnawing. The three cow, one sheep, one opossum, and four pig bones came principally from disturbed contexts in and around the store foundation; the remainder came from the midden, one of the privies (132) and a post hole (Feature 122). Food waste thus appears not to have laid exposed on the site for any length of time; given the rat population, a much larger number of gnawed specimens would have been expected.

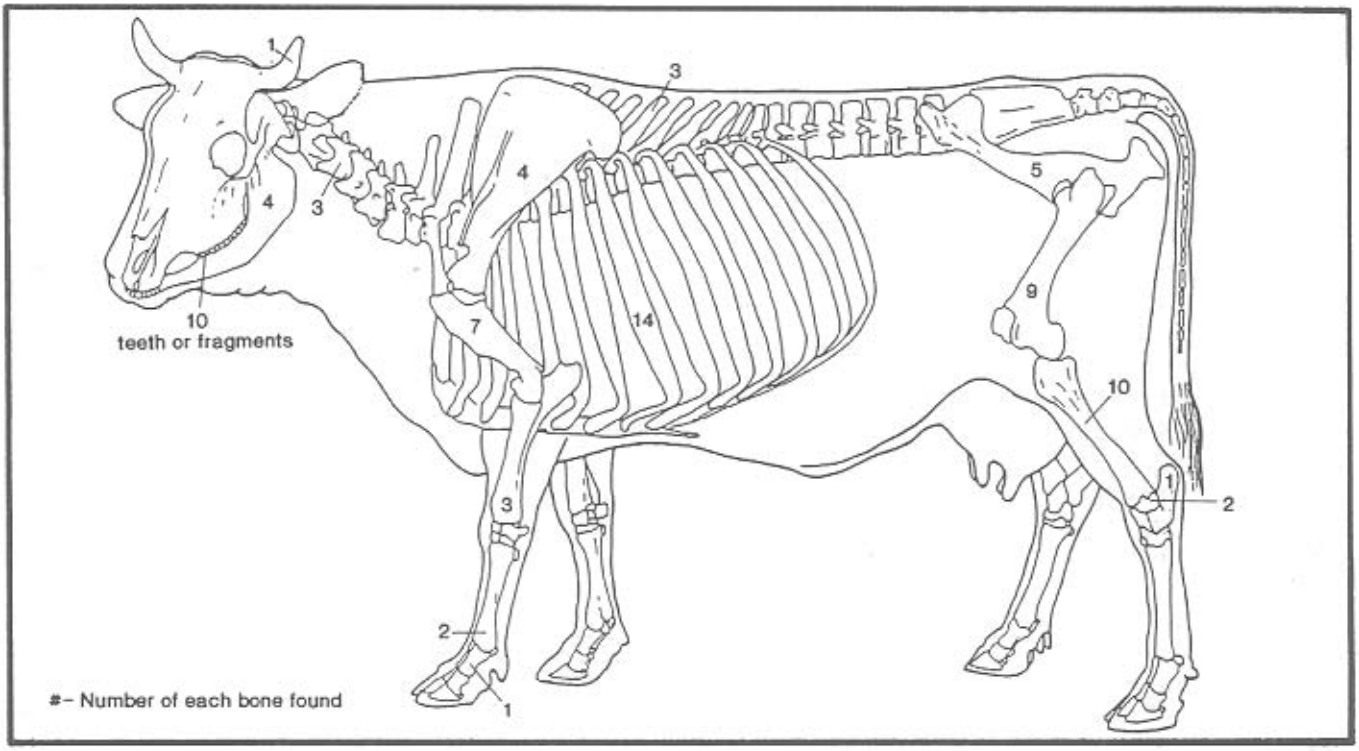
Some information regarding age at death could be garnered from 30 of the specimens (Table 83). The ageable pig bones indicate at least one pig between 2 and 3.5 years of age, and one under a year of age at death. Foot elements of both are present. The horse could have been considerably older, but not much younger, than about 3.5 years of age at death, based on the molar in the assemblage. Neither was the sheep a lamb when it died, but rather at least 1.5 years of age. Finally, the 17 tentatively ageable cow bones point to a minimum of three cows, one greater than 3.5 years of age, one between the ages of 1 and 3.5 years, and one calf under ten months old at death.

The animal's age at death and the elements present in the assemblage together indicate the quality of the meat consumed, at least from the domestic species, and whether on-site butchering was practiced. At least one cow lived, and died, on the site based on the presence of teeth, mandible, horn, and foot bones (Figure 64). The store's tenants may or may not have purposely slaughtered and butchered it. The small number of cow bones, and the comparative dearth of butchering residuals such as head, foot and tail elements argues against any of the store's residents having raised and butchered cows on-site as an important component of their domestic economy strategy. Instead they appear to have selectively acquired beef cuts, although possibly purchasing entire sides of beef, as noted in a few instances in the Coombe and Allee store accounts. The majority of the beef bones (51 or 63%) represent cuts judged of first and second quality in a 1900 edition of The American Farmer's Stock Book (Figure 65). Based on the identifiable specimens (too fragmentary to estimate the number of elements), three rump cuts, 13 shank cuts, eight round cuts, one sirloin cut, three neck cuts, three foreshank cuts, seven shoulder cuts, and three chuck cuts may be represented in the collection. This data should be viewed as extremely tentative; in addition, the relative quality and cost of different cuts as conceptualized by late eighteenth and early nineteenth century Delawareans must be reconstructed before accurate interpretations can be offered.

The pig elements distribute more evenly across the skeleton than those of the cow (Figure 66). A stronger case might therefore be made for on site raising and butchering of pigs. Unlike cows, however, the feet and head elements of pork contained edible meat (Figure 67). Utilizing a modern butchering chart, 20 specimens may represent cuts from pigs' feet, one may be a jowl cut, 15 are leg cuts (five smoked ham or shank, four ham or ham

FIGURE 64

Distribution of Elements, Bos



slice, and six rump), and eight are shoulder cuts (five arm steak or arm picnic, and three shoulder blade roasts). Once again, however, this information is extremely tentative, given the fragmentary nature of the collection and dearth of identifiable butchering marks.

The store's tenants may have purchased or bartered for pigs' heads and feet, either alone or as part of a partial or complete carcass. Documentary sources, including the Smyrna store accounts, identify pigs as the domestic animal most commonly grown for food by central Delawareans in the eighteenth and early nineteenth century. Members of all socioeconomic classes relied on them for at least a proportion of their meat, and the pork's receptibility to contemporary preservation methods such as smoking, salting and pickling was an important factor. Grettler (1991) has documented their centrality in the diet of the poorer folk, and their role in the early nineteenth century conflicts over agricultural reform. Storekeepers Coombe and Allee received large quantities of bacon and pork from local farmers, and in turn sold the meat to other local customers (Appendices XI, XII, XIII, XIV, and XV). Whether raised on site or just acquired from a neighbor or at the local store, pork clearly formed an important component of the Darrach Store tenants' diets.

One other domestic species represented in the archaeological assemblage may also have served as a source of food, the sheep/goat. Compared to beef and pork, lamb and mutton was clearly not a dietary staple, as only 12 specimens from a minimum of one animal were present (Figure 68). Fairly evenly distributed across the skeleton (Figures 68 and 69), they probably represent an animal raised on site, although perhaps not principally for food. Raising sheep for wool also became an important component of the local agricultural system during the reform years of the nineteenth century (Grettler 1991), but mostly among large landowners.

FIGURE 65

Quality of Beef Cuts, 1900

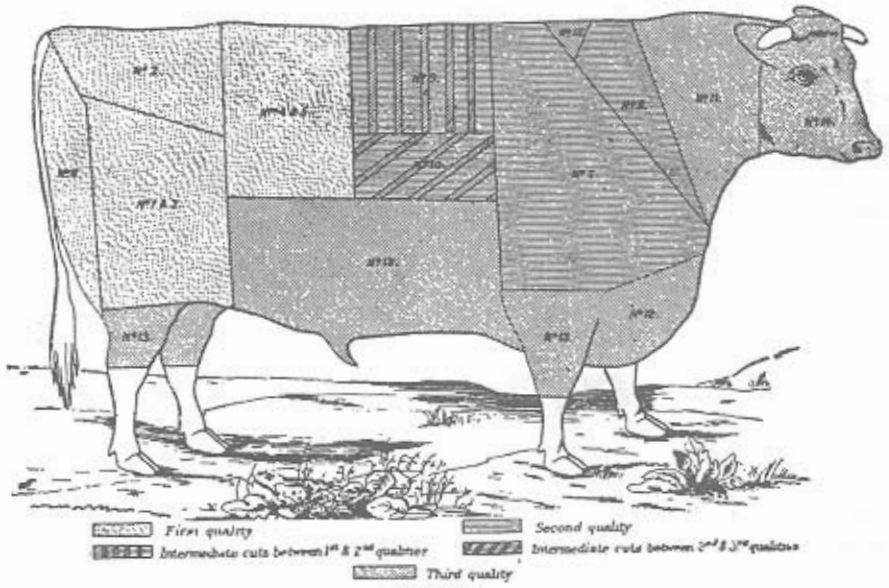


FIGURE 1.

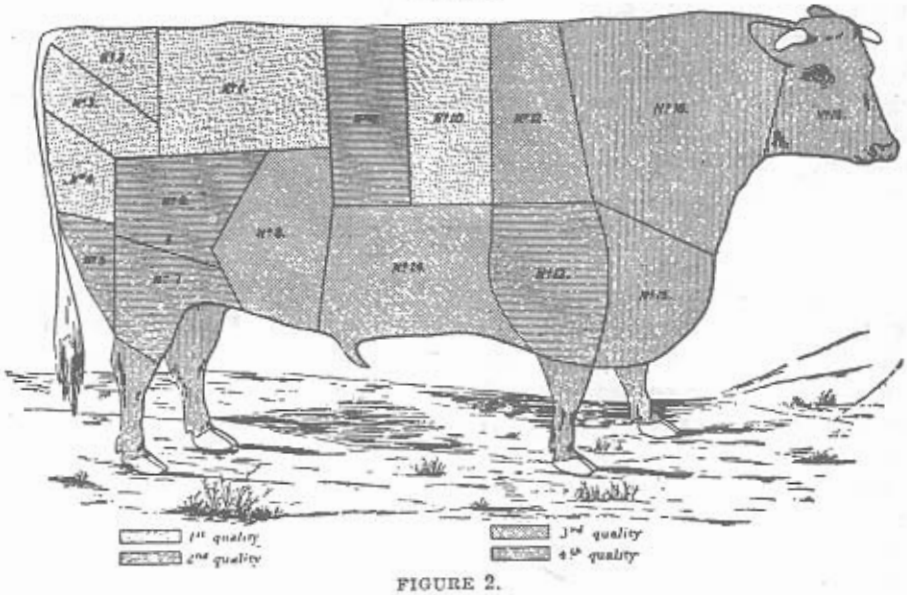
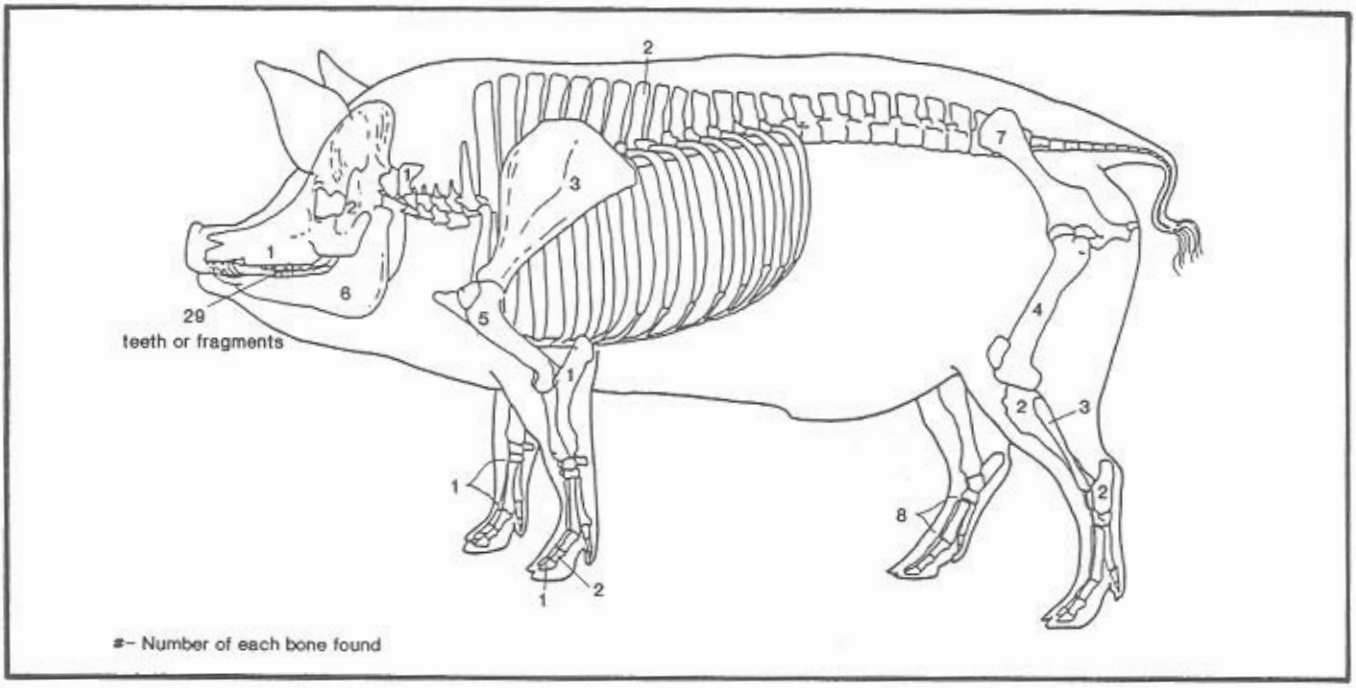


FIGURE 2.

The difference in the appreciation and value of the various cuts of meat in London and Paris is very great; and as these rules have been introduced also in the large cities of America, our stock-breeders are vitally interested, and should study this question, so they may know what portions of the body to develop by a judicious choice of breeding animals. For instance, a pound of the fillet represented by Nos. 4 and 5 in figure 1, and No. 1 in figure 2, is worth 44 cents in Paris, while the portions 13, 14 and 15 in figure 2, bring only 12½ to 14 cents. Nothing pays better than judicious and intelligent breeding of our meat supplies; and as the demand grows with the increase of population, the question assumes greater importance with each succeeding year.

FIGURE 66
Distribution of Elements, Sus

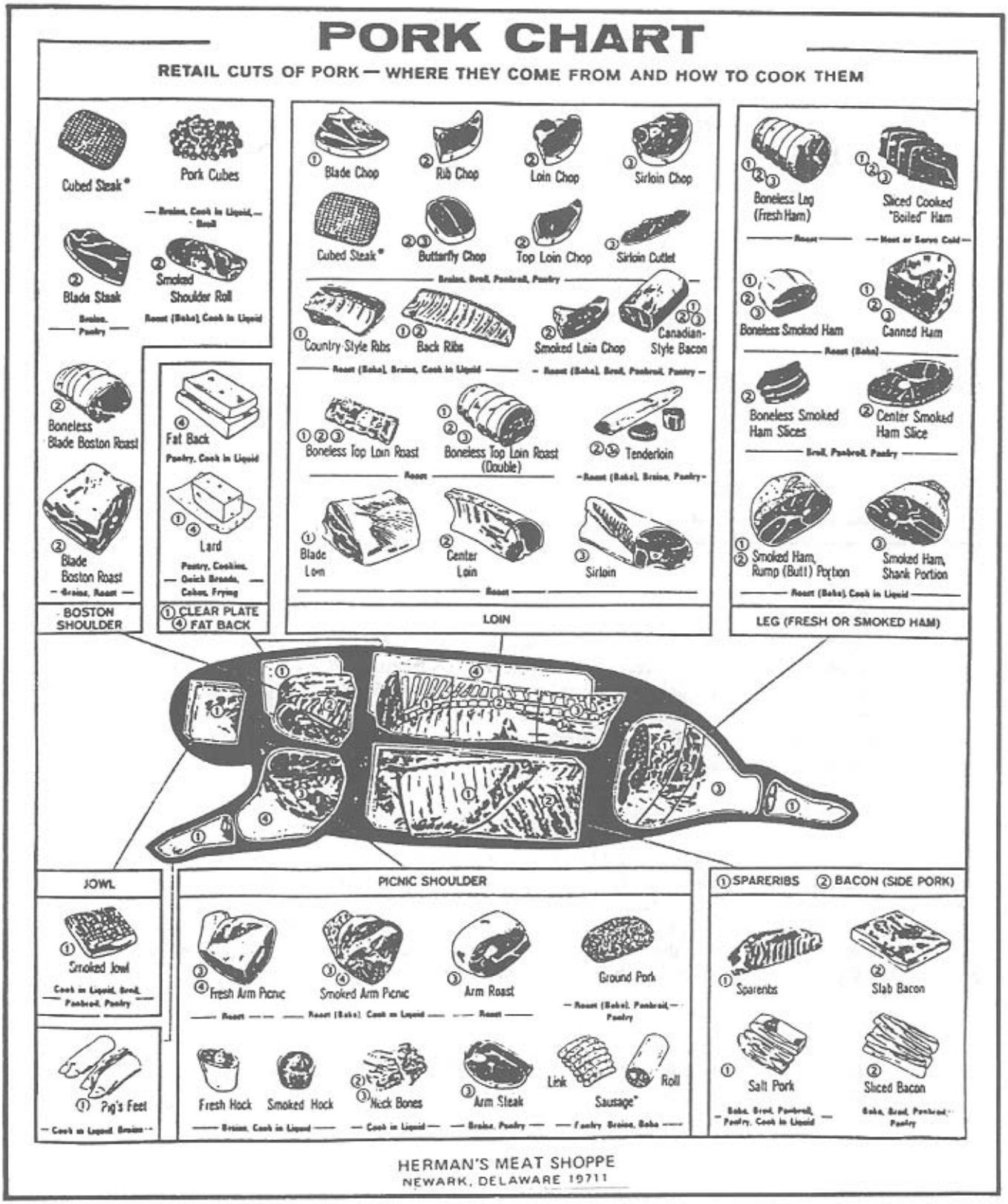


The faunal assemblage, then, considered in conjunction with the oyster shells, points to a domestic economic strategy focussing very heavily on locally available resources. This strategy included a "hunter-gatherer" component, as local small game such as muskrats and squirrels, birds such as geese, fish, and oysters were acquired, although these latter may also have been purchased or bartered from commercial oysterers and fishermen. White's, Darrach's, and later tenants may have raised pigs, apparently no great numbers of cows and sheep, but as all were principal products of the local farms and available for cash and in return for goods or services rendered, they may have acquired their domestic meats in these ways. Beef and pork appear to have formed the primary sources of protein, although oysters and wild game and fowl were important, possibly seasonal supplements.

The final question, paralleling that asked of the ceramic assemblage, relates to change over time. This question becomes even more problematic in the case of the faunal and oyster assemblages as the specimens themselves are not inherently datable, as are ceramic types. Furthermore, the major site features yielding faunal specimens remained in use only a comparatively limited period of time (such as the privies and midden), or represent disturbed contexts (such as the wells, gully, and building foundation and cellar). The latter contained a mix of earlier materials with those dating to the site's abandonment in the 1860s, and thus are not reliable sources of data for considering this question. The assemblages from the earlier features, however, may be compared with the collection as a whole. Doing so may reveal, for example, that all the wild game and fowl specimens occurred in these features, thus identifying a trend of increasing reliance on domestic fauna over the course of the nineteenth century. While not the case, differential discard of the remains of different animals did occur. Almost exclusively cow and pig bones occurred with the large concentrations of shell in the middens (Features 108-108C), while muskrat, opossum, bird and turtle bones dominate the assemblages from the privies, especially Feature 132. Oyster shells are much less numerous in Privy 132, but occurred in quantity in the other privy. Unfortunately, the reasons for these discard patterns remain unclear. In conclusion, then, the domestic economic strategy or foodways system described above applies with most certainty to the late eighteenth and early nineteenth century tenant households, perhaps up to circa 1825.

FIGURE 67

Cuts of Meat, Pork



HERMAN'S MEAT SHOPPE
NEWARK, DELAWARE 19711